

**AMENDMENTS TO THE CLAIMS**

1-37. **(Canceled)**

38. **(Currently Amended)** A method of treating melanoma ~~cancer~~ in a subject, comprising topically administering to a subject in need thereof a composition comprising a therapeutically effective amount of between about 0.01% and 30% w/w of Coenzyme Q10, thereby treating melanoma ~~cancer~~ in the subject.

39. **(Currently Amended)** A method of treating melanoma ~~cancer~~ in a subject, comprising topically administering to a subject in need thereof a composition comprising an effective amount of between about 1.5 and 4.0 mg of Coenzyme Q10 per kg of body weight of the subject, thereby treating melanoma ~~cancer~~ in the subject.

40. **(Previously Presented)** The method of claim 38 or 39, wherein the subject is human.

41. **(Previously Presented)** The method of claim 38 or 39, wherein the composition comprising Coenzyme Q10 is formulated as a topical cream.

42. **(Previously Presented)** The method of claim 38 or 39, wherein the composition comprising Coenzyme Q10 is liposomal.

43. **(Previously Presented)** The method of claim 38, wherein the composition comprises about 1% to about 25% w/w of Coenzyme Q10.

44. **(Previously Presented)** The method of claim 38, wherein the composition comprises about 1% to about 20% w/w of Coenzyme Q10.

45-59. **(Canceled)**

60. **(Previously Presented)** The method of claim 38 or 39, wherein the composition comprising Coenzyme Q10 is administered with an additional anti-cancer agent.
61. **(Previously Presented)** The method of claim 60, wherein the additional anti-cancer agent is a chemotherapeutic agent.
62. **(Previously Presented)** The method of claim 61, wherein the chemotherapeutic agent is selected from the group consisting of cyclophosphamide, taxanes, busulfan, methotrexate, daunorubicin, doxorubicin, melphalan and cladribine.
63. **(Previously Presented)** The method of claim 61, wherein the chemotherapeutic agent is selected from the group consisting of vincristine, vinblastine, chlorambucil, tamoxifen, taxol, camptothecin, actinomycin-D, mitomycin C and combretastatin.
64. **(Previously Presented)** The method of claim 61, wherein the chemotherapeutic agent is selected from the group consisting of cisplatin, etoposide, adriamycin, verapamil and podophyllotoxin.
65. **(Previously Presented)** The method of claim 61, wherein the chemotherapeutic agent is 5-fluorouracil.
66. **(Previously Presented)** The method of claim 60, wherein the additional agent is an anti-angiogenic agent.
67. **(Previously Presented)** The method of claim 60, wherein the additional anti-cancer agent is co-administered with the composition comprising Coenzyme Q10 to the subject.
68. **(Previously Presented)** The method of claim 60, wherein administration of the additional anti-cancer agent precedes administration of the composition comprising Coenzyme Q10 to the subject.

69. **(Previously Presented)** The method of claim 60, wherein administration of the additional anti-cancer agent follows administration of the composition comprising Coenzyme Q10 to the subject.

70. **(Currently Amended)** The method of claim 38 or 39, wherein treatment results in inhibition of ~~tumor~~ melanoma cell growth in the subject.

71. **(Currently Amended)** The method of claim 38 or 39, wherein treatment results in an increase in apoptosis of ~~tumor~~ melanoma cells in the subject.

72. **(Currently Amended)** The method of claim 38 or 39, wherein treatment results in inhibition of ~~tumor~~ melanoma-mediated angiogenesis in the subject.

73. **(Currently Amended)** A method for inhibiting ~~tumor cell growth~~ proliferation of melanoma cells in a subject, the method comprising topically administering to a subject having a ~~tumor melanoma~~ a pharmaceutical composition comprising Coenzyme Q10, thereby inhibiting ~~tumor growth cell~~ proliferation of melanoma cells in the subject.

74. **(Previously Presented)** The method of claim 73, wherein the subject is human.

75. **(Previously Presented)** The method of claim 73, wherein the pharmaceutical composition comprising Coenzyme Q10 is formulated as a topical cream.

76. **(Previously Presented)** The method of claim 73, wherein the pharmaceutical composition comprising Coenzyme Q10 is liposomal.

77. **(Previously Presented)** The method of claim 73, wherein the pharmaceutical composition comprises about 0.01% to about 30% w/w of Coenzyme Q10.

78. **(Previously Presented)** The method of claim 73, wherein the pharmaceutical composition comprises about 1% to about 25% w/w of Coenzyme Q10.

79. **(Previously Presented)** The method of claim 73, wherein the pharmaceutical composition comprises about 1% to about 20% w/w of Coenzyme Q10.
80. **(Currently Amended)** A method of inducing apoptosis in a ~~tumor~~ melanoma cell in a subject, the method comprising topically administering to a subject having a ~~tumor~~ melanoma a pharmaceutical composition comprising Coenzyme Q10, thereby inducing apoptosis in a ~~tumor~~ melanoma cell in the subject.
81. **(Previously Presented)** The method of claim 80, wherein the subject is human.
82. **(Currently Amended)** The method of claim 80, wherein the pharmaceutical composition induces apoptosis in at least about 30% of ~~tumor~~ melanoma cells.
83. **(Currently Amended)** The method of claim 80, wherein the pharmaceutical composition induces apoptosis in about 50% of ~~tumor~~ melanoma cells.
84. **(Currently Amended)** The method of claim 80, wherein the pharmaceutical composition induces apoptosis in about 60% of ~~tumor~~ melanoma cells.
85. **(Currently Amended)** The method of claim 80, wherein the pharmaceutical composition induces apoptosis in about 75% of ~~tumor~~ melanoma cells.
86. **(Currently Amended)** The method of claim 80, wherein the pharmaceutical composition induces apoptosis in about 90% of ~~tumor~~ melanoma cells.
87. **(Currently Amended)** The method of claim 80, wherein the pharmaceutical composition induces apoptosis in about 99.9% of ~~tumor~~ melanoma cells.
88. **(Previously Presented)** The method of claim 80, wherein the pharmaceutical composition comprising Coenzyme Q10 is formulated as a topical cream.

89. **(Previously Presented)** The method of claim 80, wherein the pharmaceutical composition comprising Coenzyme Q10 is liposomal.
90. **(Previously Presented)** The method of claim 80, wherein the pharmaceutical composition comprises about 0.01% to about 30% w/w of Coenzyme Q10.
91. **(Previously Presented)** The method of claim 80, wherein the pharmaceutical composition comprises about 1% to about 25% w/w of Coenzyme Q10.
92. **(Previously Presented)** The method of claim 80, wherein the pharmaceutical composition comprises about 1% to about 20% w/w of Coenzyme Q10.
93. **(Currently Amended)** A method of inhibiting ~~tumor~~ melanoma-mediated angiogenesis in a subject, the method comprising topically administering to a subject having a ~~tumor~~ melanoma a pharmaceutical composition comprising Coenzyme Q10, thereby inhibiting ~~tumor~~ melanoma-mediated angiogenesis in a subject.
94. **(Previously Presented)** The method of claim 93, wherein the subject is human.
95. **(Previously Presented)** The method of claim 93, wherein the pharmaceutical composition comprising Coenzyme Q10 is formulated as a topical cream.
96. **(Previously Presented)** The method of claim 93, wherein the pharmaceutical composition comprising Coenzyme Q10 is liposomal.
97. **(Previously Presented)** The method of claim 93, wherein the pharmaceutical composition comprises about 0.01% to about 30% w/w of Coenzyme Q10.
98. **(Previously Presented)** The method of claim 93, wherein the pharmaceutical composition comprises about 1% to about 25% w/w of Coenzyme Q10.

99. **(Previously Presented)** The method of claim 93, wherein the pharmaceutical composition comprises about 1% to about 20% w/w of Coenzyme Q10.